

**Notice of Allowability**

Application No.

10/086,696

Applicant(s)

ABE ET AL.

Examiner

Jean M. Corrielus

Art Unit

2162

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to THE REQUEST FOR CONTINUED EXAMINATION FILED ON FEBRUARY 23, 2003.
2. ☒ The allowed claim(s) is/are 1-23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 2/23/06
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
- ☐ Examiner's Amendment/Comment
- ☒ Examiner's Statement of Reasons for Allowance
- ☐ Other \_\_\_\_\_

  
JEAN M. CORRIELUS  
PRIMARY EXAMINER

### **DETAILED ACTION**

1. This office action is in response to the Request for Continued Examination (RCE) filed on February 23, 2006, in which claims 1-13 are presented for further examination.

#### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) filed on February 23, 2006 complies with the provisions of M.P.E.P 609. It has been placed in the application file. The information referred to therein has been considered as to the merits.

#### ***Continued Examination Under 37 CFR 1.114***

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on February 23, 2006 has been entered.

#### ***Allowable Subject Matter***

4. Claims 1-13 are allowable in light of the Applicant's arguments and the prior art made of record.

***Reasons for Indicating Allowable Subject Matter***

5. The following is an examiner's statement of reasons for allowance: Upon searching a variety of databases, the examiner respectfully submits that “an automaton generating step of generating, in a main memory, an automaton which receives a character string of a sort key item of each record read successively from outside, and which is a set of state transition tables with a hierarchical tree structure whose hierarchical depth is equal to a maximum number of characters of a character string of a sort key item of each record, and whose transition table corresponds to each character of a character string of the sort key item of each record, and also whose state transition table contains links to next stage state transition tables each of which corresponds to a next character of a character string of the sort key item of each record in an ascending/descending order according to each of the next characters, and which associates a record identifier of each record with a final state transition table corresponding to the final character of a character string of the sort key item of the record” in conjunction with all other limitations of the dependent and independent claims are not taught nor suggested by the prior art of record. Therefore, all pending claims 1-13 is hereby allowed.

Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings **if they have not been yet submitted** in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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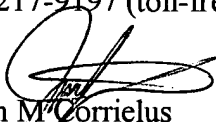
fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean M. Corrielus whose telephone number is (571) 272-4032. The examiner can normally be reached on 10 hours shift.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jean M. Corrielus  
Primary Examiner  
Art Unit 2162

April 27, 2006